



SPECIFICATION

Title, Halo Hanger

this is the  
marked up  
copy of the  
sub spec.  
6/29/97

a. Background. This invention (relates to a woodwind musical instrument known as a recorder, specifically to an apparatus for suspending a recorder from ones neck) pertains to the general field of a neck strap arrangement for carrying a musical instrument or other object. In particular, it provides a new and improved method of carrying a woodwind musical instrument known as a recorder.

b. Objects and Advantages. (When not in use, recorders are either held in ones hand or laid down. This creates the problem of eliminating the use of one hand or the misplacing of the recorder. Accordingly, the objective and advantage of the Halo Hanger is that this solves both problems by allowing the recorder to be comfortably suspended from one's neck, out of the way, while not in use, but remain readily available for use. Further objects and advantages of the Halo Hanger invention will become apparent from a consideration of the drawing and ensuing description.)

(1) Description of Prior Art. The recorder is an instrument that is of such size that it can be carried easily. This instrument is most often used by children in early grade school for instruction in music. Most often the child will purchase a recorder. The child will then carry the recorder to class and carry it in the hand during class. If the child needs to use the hands for another purpose, the recorder is laid down

and subject to loss, contamination or confusion when play is to be continued. Also, like anything a child is forced to carry in their hands, the object can be inappropriately used as a toy, weapon, or whatever fits the occasion.

Prior art is limited to some resourceful teachers that have simply tied a string around the recorder with some sort of loop that is placed around the child's neck to suspend the recorder. Because the knots may slip, come untied or can not be readily untied, this method has not gained wide support. In addition, after the teacher has tied all the knots required by the students, the teacher has little time left for instruction. Thus, at the present time, there is no suitable means for the hand free carrying of the recorder. Also, this method has only been applied to recorders possessing a definite ridge along its shaft and not merely a tapered shaft.

(2) Objectives. It is therefore an objective of this invention to provide a device for conveniently carrying a recorder or any similar object, with an expanding circumference shaft, securely affixed to a strap that is worn about the neck.

Another objective of the invention is the realization of the above mentioned objective with simple, reliable and inexpensive hardware.

(3) Advantages. In accordance with these and other objectives, the method and apparatus of this invention consist of a ring and an attached strap. The ring is made of durable material and is of sufficient inside diameter so as to fit, after

the strap has been secured to the ring, snugly around the shaft of the mouth piece of the recorder. The ring is secured on the recorder by pulling the recorder apart at its dividing point or sliding it over the lower narrow end and then slipping the ring around the mouth piece section and sliding it up the shaft until it is securely lodged on the shaft. Because the diameter of the shaft increases towards the end where the instrument is blown, the ring will be secure on the recorder shaft between the fingering holes and the mouth piece. The two pieces of the recorder are then reconnected, if applicable.

Various other purposes and advantages of the invention will become clear from its description in the specifications that follows, and from the novel features particularly pointed out in the appended claims. Therefore, to the accomplishment of the objectives described above, this invention consists of the feature hereinafter illustrated in the drawings, fully described in the detailed description of the preferred employment and particularly pointed out in the claims. However, such drawings and description disclose only some of the various ways in which the invention may be practiced.

c. Description of Drawings. (Drawing 1. Figures 1 and 2 show a plane and oblique view of the of the ring respectively. Figure 3 shows the ring described in Figures 1 and 2 attached to a strap. Drawing 2 shows a ring with strap connected to a recorder.)

(1) Brief Description. This invention together with

its features and advantages can be better understood from the following description when read in conjunction with the drawings in which

FIG. 1 is a perspective view of the ring of the device of the invention.

FIG. 2 is a perspective view of the device of the invention.

FIG. 3 is a perspective view of the device attached to a recorder.

(2) Detailed Description. The heart of this invention lies in the simple ring, which makes it possible to conveniently attach a strap to a recorder. Thus, the main objective of providing an easy method to carry a recorder is met.

Referring to the drawings, wherein the same reference numbers and symbols are used throughout to designate like parts, FIG. 1 illustrates the general configuration of the ring 1 before the strap 2 is attached and it is mounted on the recorder A.

The ring 1 has a surface 3 and 5 of such dimensions so as to provide strength enough to withstand the rigors and forces that would be anticipated when the device is in use by elementary age school children. As illustrated in FIG. 1, the precise geometry of the inner surface 4 of the ring is a circle with a diameter a few thousandths of an inch larger than the diameter of the recorder A at the point of the juncture C of the two pieces B and D of the recorder A. The diameter of the mouth piece B section of the recorder A increases from the separation point C to the air hole of the mouth piece B located just above the mid

point of the mouth piece B.

The strap 2 is made of a thin cloth material that is strong enough to hold the recorder or other desired object, yet be comfortable when placed around the neck. The knot 7 is a simple over-hand knot tied in the middle of strap 2 after placing one end through the ring 1. Knot 6 is any knot that will neatly secure the ends of the strap 2.

The ring 1 is attached to the recorder A by pulling apart the two pieces B and D of the recorder A at the separation point C, or, if appropriate, by sliding it upward from the small end of the recorder without separating. The ring 1 is then slide onto the shaft of the mouth piece B of the recorder 1 at the end that attaches to the fingering piece D of the recorder A. The ring 1 will slip onto the mouth piece B and then lodge at a point up the shaft between the fingering holes and the mouth piece due to an increase in the circumference of the shaft.

d. Description of Invention. (The Halo Hanger is a simple apparatus consisting of a ring of suitable inside diameter so as to fit snugly around the shaft of a recorder below the mouth piece and a strap that attaches to the ring and of sufficient length so that it can be suspended around the neck of the person playing the recorder.) While the invention is described in terms of a device for providing a means of holding or carrying a recorder, it is obvious that the same principle could be extended to applications involving other musical instruments or objects. Therefore, it is understood that many equivalent

devices are possible within the scope of the present invention,  
with different configurations of the ring. Thus, various changes  
in the details, steps and materials that have been described may  
be made by those skilled in the art within the principles and  
scope of the invention herein illustrated and defined in the  
appended claims. While the present invention has been shown and  
described herein in what is believed to be the most practical and  
preferred embodiment, it is recognized that departures can be  
made therefrom within the scope of the invention, which is  
therefore not to be limited to the details disclosed herein, but  
is to be accorded the full scope of the claims so as to embrace  
any and all equivalent apparatus and methods.

e. Operation of Invention. (After a suitable strap is attached to the appropriate size ring, the ring is attached to a recorder by slipping the ring onto the upper section of the recorder. The strap may be adjusted so the recorder hangs comfortably from the neck of the person playing the recorder.)

It is therefore an objective of this invention to provide  
a device for conveniently carrying a recorder securely affixed to  
a strap that is worn about the neck.

Another objective of the invention is the realization of  
the above mentioned objective with simple, reliable and  
inexpensive hardware.

In accordance with these and other objectives, the method  
and apparatus of this invention consist of a ring and an attached  
strap. The ring is made of durable material and is of sufficient

inside diameter so as to fit, after the strap has been secured to  
the ring, snugly around the shaft of the mouth piece of the  
recorder. The ring is secured on the recorder by pulling the  
recorder apart at its dividing point and then slipping the ring  
around the mouth piece section and sliding it up the shaft until  
it is securely lodged on the shaft, or, if possible, by sliding  
over the smaller end without separating the recorder. Because  
the diameter of the shaft, of the mouth piece section, increases  
from the separation point towards the upper end, the ring will be  
secure on the recorder shaft approximately one inch from the  
dividing point. The two pieces of the recorder are then  
reconnected if applicable.

Various other purposes and advantages of the invention will  
become clear from its description in the specifications that  
follows, and from the novel features particularly pointed out in  
the appended claims. Therefore, to the accomplishment of the  
objectives described above, this invention consists of the  
feature hereinafter illustrated in the drawings, fully described  
in the detailed description of the preferred employment and  
particularly pointed out in the claims. However, such drawings  
and description disclose only some of the various ways in which  
the invention may be practiced.

#### Machine Claim

##### Halo Hanger

(An attachment for the suspension of a recorder, from the user's neck, comprising:

a. a ring of sufficient inside diameter to fit snugly on a recorder, and

b. a strap of sufficient length to allow the strap to be attached to the ring and be suspended from the neck of the user for easy access.)

(Amended) ~~2.~~ 1. A simple and inexpensive device for holding a recorder, comprising, in combination:

(a) a recorder

(b) a circular ring, having an inner surface diameter slightly larger than the diameter of said recorder at the point where the two pieces of the recorder are attached.

(c) a strap, attached to the ring, for securing the device for convenient access by a user.

(Amended) ~~3.~~ The device described in claim 1, wherein said recorder is any other similar musical instrument or object.

#### Remarks

While it is true that the devices of Wimmershoff-Caplan, Sonderman, Schaiewitz, Carpenter and Bingham are examples of prior art comprising a ring or loop and a strap, that may be used to carry, or modified to carry, a recorder, they are not well suited for such a function. Specifically, the Sonderman device requires the device being suspended to possess an annular groove around which the cord is secured. In our device it was necessary to find a way to secure a device with no grooves, but with an increasing circumference. The means of attachment of the

Schaiewitz device is similarly not suitable for a recorder due to its being designed for a weight to rest on the loop rather than with in the loop. It, also, requires that the device being suspended possess a belt clip, which recorders do not possess.

Carpenter's device is not appropriate for suspension of a recorder or for a device with a tapered shaft. It is also not suited to use with a device suspended from the neck. It states specifically in its description section that it is intended for use with a "straight shaft cane."

The device of Bingham was not designed for use with a recorder or to be suspended from the users neck, but also requires a shoulder to be present in the suspended device, against which the ring must rest. The applicant's device does not require a shoulder and is designed for any object with an increase of shaft diameter, either a shoulder or a taper.

The device of Carpenter or Bingham, even if a recorder could be carried, would not allow the recorder to be hung around the neck. The Sonderman or Schaiewitz device would result, due to the activities of the children, in the recorder being dropped because of the adjustment feature, which is not appropriate for children carrying a recorder. The Wimmershoff-Caplan device was designed to be a piece of jewelry, and as such would be inappropriate for small children. Also, it is designed for a straight-shaft object possessing a clip, which is not present on a recorder.

William's device is intended for the suspension of a token

or coin around which the ring hangs vertically. Because the  
ring is not circular and has a notch in its inner surface, if it  
is placed around a recorder or similar object, that objects  
surface could be damaged, due to the softer material of the  
recorder, wood or plastic.

Just as any of the above devices may be capable of  
fulfilling the objective of any other device it is the embodiment-  
of a new idea that separates them one from the other, and this is  
exactly what makes this application different. Even though the  
design is simple, it is unique and embodies a new idea for  
carrying a recorder or other similar object.

Respectfully submitted by:

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